

## Notes on the birds of Makogai Island, Fiji Islands

by *Dick Watling*

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Makogai is a 10 km<sup>2</sup> island in Fiji's Lomaiviti Group (17°26'S, 178°59'E). It lies 30 km northeast of Ovalau, which is 15 km east of Fiji's largest island, Viti Levu; and 12 km north of Wakaya. The island is composed of augite basalt flows and agglomerates which rise to 267 m. Much of it is presently covered by a mature secondary scrub-forest, under which the herb layer is almost non-existent because of the presence of a large population of feral goats. All the flat land and some of the gentler slopes have been planted with coconuts.

Much of the vegetation on Makogai has probably undergone considerable change over the past 2-3 centuries. Old Fijian village sites with large earthworks and stone fortifications are evidence of a large native population in former times, but one which was virtually eradicated in the 1830's (F. Clunie). Since then Makogai has a long record of European settlement. At the beginning of this century there was a thriving sheep station (Turbet 1929) so that there was probably a far more open habitat than there is today. From about 1910 until 1969 there was a Leper Colony with a community of several hundred people. Today there is a small government sheep quarantine station, and potential pasture land is being cleared and put down to grass.

I spent 6 days, 20-25 November 1981 on Makogai and briefly visited the off-shore islet of Makodroga (1 km<sup>2</sup>). Rollo H. Beck, the principal collector for the Whitney South Sea Expedition, collected birds on Makogai 19-23 October 1924. His journal and the expedition's specimens are deposited in the American Museum of Natural History (AMNH), as is a translation of the original journal in Portuguese of José Correia, who was the expedition's assistant collector at the time although he did not accompany Beck to Makogai. There are also 3 skins (of *Gallicolumba stairii*, *Ptilinopus porphyraceus* and *Halcyon chloris*) in the Cambridge University Zoology Museum collected on Makogai by, or for, Baron von Hügel in 1874 (Watling 1978a). These are the only previous ornithological records related to the island. The list of birds collected by the Whitney Expedition on Makogai has been drawn up from du Pont (1976).

### SPECIES RECORDED FOR THE FIRST TIME ON MAKOGAI

Wandering Tattler *Heteroscelus incanus*.

Several dozen were seen on the coastal reefs around Makogai and Makodroga. It is a very common visitor to Fiji during the northern winter and some individuals remain throughout the year.

Collared Lory *Phigys solitarius*.

Common. About 10 were regularly seen feeding on ripe fruits of Mango *Mangifera indica* and Soursop *Annona muricata* around the government station. Small flocks (usually 4-8) and several pairs were seen flying over the forest. One was seen leaving a suspected nest-hole in a rotten branch of a tree in the forest on the top ridge.

White-throated Needletail *Hirundapus caudacutus* (following Collins & Brooke 1976).

Brown & Child (1975) reported it from Vatulele Island, which was the

first record from the Fiji Region of this passage migrant. I saw and photographed 3 from the summit of Makogai on 23 November 1981 as they made long sweeping passes at high speed over the top ridge. There is little chance of mistaken identity, since the only other species with which they might have been confused is the White-rumped Swiftlet *Collocalia spodiopygia*, which is unknown on Makogai.

Red-vented Bulbul *Pycnonotus cafer*.

An introduced bird to Fiji, but not common on Makogai, it was seen in small numbers around 2 parts of the abandoned leper colony and around the government station. The small population possibly indicates a recent arrival or the absence from the island of favoured weed foods, which appear to restrict its range elsewhere in Fiji (Watling 1978b). Of these weeds only *Solanum torvum* is found on Makogai and is not widespread. This bulbul probably reached Makogai from Wakaya where it is very common. Fledglings were seen at the government station.

SPECIES RECORDED BY THE WHITNEY SOUTH SEA EXPEDITION  
BUT NOT SEEN DURING THE PRESENT VISIT

Swamp Quail *Synoicus ypsilophorus*. An introduced species to Fiji, which is not recorded as having been liberated on Makogai (Mercer 1964, Watling 1982). The Whitney South Sea Expedition collected a female (AMNH Accession Number 220885). On the islands of Viti Levu and Vanua Levu, the species is rare and restricted to open habitats in the drier leeward sides of the islands. I may have overlooked it on Makogai, but it could have died out. If the latter, competition with Jungle Fowl *Gallus gallus* (an aboriginal introduction) or predation by feral cats may have been responsible.

Banded Rail *Gallirallus philippensis*.

A species not likely to have been overlooked. It was not collected by the Whitney Expedition, but Beck wrote (21 October 1924) "Rails are also detrimental as they go into the chicken houses and eat eggs". It is unlikely that he is referring to any other species of rail found in Fiji. They may have succumbed to the large population of feral cats on Makogai, but this has not occurred on Wakaya, where there are both feral cats and a healthy population of Banded Rail.

Pacific Pigeon *Ducula pacifica*.

A conspicuous and vocal species which is unlikely to have been overlooked. It is a renowned wanderer between small islands and its disappearance could be temporary, or it may have succumbed to shooting by inmates and staff of the former leprosy colony. At the present time the small government community of about 15 families is without firearms. Re-colonisation should certainly take place, since it is common on Wakaya.

Peale's Pigeon *Ducula latrans*.

Again, unlikely to have been overlooked. The Pacific and Peale's Pigeon occur sympatrically on only a few islands in the Fiji Archipelago (Holyoak & Thibault 1978). An island of Makogai's size and topography would be characteristically occupied by the Pacific Pigeon alone. It is more likely that habitat differences rather than the presence or absence of raptors (see Holyoak & Thibault *loc. cit.*) is responsible for the inter-island distribution of these pigeons, especially since their differing gizzard morphology (Beckon 1980) indicates that they must have very different feeding ecologies. Makogai

would appear to be a marginal island for *D. latrans*, but it is close to a colonising source (the large island of Ovalau or Viti Levu) and this species still survives, although uncommonly, on Wakaya. Its disappearance from Makogai is therefore of interest, although it might, like the previous species, have been due to shooting.

Fan-tailed Cuckoo *Cacomantis pyrrophanus*.

Possibly overlooked during the present visit, as it is a shy, inconspicuous species outside its breeding season and is normally present in low densities. However, it was singing vociferously in west Viti Levu in the 2 months preceding the visit to Makogai and the Vanikoro Broadbill *Myiagra vanikorensis*, the most abundant potential host on the island, was breeding at the time.

White-breasted Woodswallow *Artamus leucorhynchus*.

Beck recorded in his journal (21 October 1924) that he had secured a Woodswallow and saw 3-4 others, indicating that they were not common at the time of his visit. It is a conspicuous species and there is no obvious explanation for its disappearance. Possibly this is temporary, as it occurs in reasonable numbers on Wakaya.

BIRDS RECORDED DURING THE PRESET VISIT AND ALSO BY THE  
WHITNEY SOUTH SEA EXPEDITION

The Whitney Expedition did not collect several very common species, but their presence on Makogai was noted by Beck in his journal (these species are marked by an asterisk).

\*Reef Heron *Egretta sacra*.

Several around the coast, grey and white but no mottled forms observed.

\*Jungle Fowl *Gallus gallus*.

Common in the forest, and apparently not affected by the feral cats on the island.

Swamp Harrier *Circus approximans*.

The only raptor observed, 2 or 3 pairs are present.

Crested Tern *Sterna bergii*.

Seen only in small numbers at Dalice. (No seabird breeding colonies were seen on the island and although there appeared to be suitable locations, there were no reports or evidence of nesting petrels.)

White-throated Pigeon *Columba vitiensis*.

Not common, seen on 2 occasions. Its subdued call was heard on both Makogai and Makodroga.

Friendly Ground-dove *Gallicolumba stairii*.

Two pairs were seen on the forested top ridge of Makogai and another 2 pairs on Makodroga.

Many-coloured Fruit-dove *Ptilinopus perousii*.

Heard frequently, but not as common as the following species. An occupied nest with a single squab was found.

Crimson-crowned Fruit-dove *P. porphyraceus*.

Common all over the island, also heard on Makodroga. Two nests were found, one with a single egg and the other with a single squab.

\*Spotted Turtle-dove *Streptopelia chinensis*.

Common, especially in the more open areas. A nest with a single squab

was found. It is an introduced bird to the Fiji Islands and has spread quite widely of its own accord. It is abundant on nearby Wakaya I.

\*White-collared Kingfisher *Halcyon chloris*. Common.

\*Pacific Swallow *Hirundo tabitica*.

Very common over all habitats including forest above the top ridge, also on Makodroga. In the absence of the White-rumped Swiftlet it obviously undergoes considerable niche expansion. An empty nest with recent signs of nestlings was found under a cliff overhang. Other old nests and a dependent young were seen on buildings at the government station.

Fiji Shrikebill *Clytorhynchus vitiensis*.

Seen on several occasions, but more commonly heard.

\*Vanikoro Broadbill *Myiagra vanikorensis*.

Common in all habitats and on Makodroga. Two nests were found both with C/2.

Grey-backed White-eye *Zosterops lateralis*.

Small flocks were common in all habitats and on Makodroga.

Orange-breasted Honeyeater *Myzomela jugularis*.

Very common in all habitats, also on Makodroga.

Polynesian Starling *Aplonis tabuensis*.

Common all over the island.

#### SPECIES MISSING FROM MAKOGAI

Three species, the White-rumped Swiftlet, the Polynesian Triller *Lalage maculosa* and the Wattled Honeyeater *Foulebaio carunculata* were not seen during the present visit or recorded by the Whitney Expedition. They are also absent from Wakaya and were not recorded on the other small islands of the Lomaiviti Group – Nairai and Batiki – by the Whitney Expedition. However, Ramsay (1875) records an immature *Lalage maculosa* from Batiki. Their absence is puzzling, since all are found on many smaller islands elsewhere in Fiji. None of them is apparently particularly specialised in either habitat requirements or feeding behaviour and the Lomaiviti Group can be considered the spatial centre of their range in Fiji. Lack of suitable nesting sites may be a limiting factor for the swiftlet, though there are rock overhangs on Makogai similar to those used elsewhere in Fiji.

Whilst on Makogai, the Whitney Expedition did not collect specimens of several very common species, probably deliberately. They were on the island for most of 5 days, a long visit compared with those to other islands of similar size. The colonial government had restricted the number of each species that could be collected and the expedition probably restricted its collection on some islands so that the quota could be exceeded where larger series were required. The colonial government was under pressure from the planter community, who it is apparent from agricultural records, newspaper articles and anecdotal accounts, were concerned at the apparent absence of insectivorous birds from open habitats and hence from their farms. This absence is real enough, nearly all Fiji's insectivorous species being adapted to forest (Pernetta & Watling 1978). The Whitney Expedition was refused permission to collect birds on some privately owned islands (e.g. Kanacea) and plantations (Correia's Journal, 16–30 June 1924). Pressure from the planter community was almost certainly responsible for the introduction by the Department of Agriculture of the 2 species of mynah *Acridotheres*

*tristis* and *A. fuscus* which are successfully established on some islands, and the Australian Magpie *Gymnorhina tibicen* established only on Taveuni.

The collection of the Whitney Expedition certainly forms the basis of our present knowledge of the inter-island distribution of birds in Fiji, but as already mentioned, the expedition did not collect every species it encountered on each island. Those birds seen but not collected were noted in Beck's and Correia's Journals for some islands, but many islands have no such list. The entries appear to be haphazard and the identity of certain birds is difficult because of the use of peculiar English names. One inevitably suspects the comprehensiveness of these observations and consequently the use of the Whitney records as the definitive list of the avifauna of Fiji islands in the 1920's.

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*Address:* Dick Watling, Box 9216, Nadi Airport P.O., Fiji.

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## Taxonomic status of the Timor Cuckoo-shrike *Coracina personata* (Müller)

by Ian J. Mason & John L. McKean

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All modern arrangements (Ripley 1941, Mayr 1944, Voous & van Marle 1949, Peters *et al.* 1960) place *Coracina personata* (Müller) as a race of *C. novaehollandiae* (Gmelin). During field work in Timor (McKean *et al.* 1975) we had the opportunity of observing and collecting *personata* and formed the opinion that the bird was not a race of *novaehollandiae*. Museum material of most of the likely related forms confirmed this and we concluded that, at present, *personata* is best treated as a full species.